UBS Global Media & Communications Conference New York City December 5, 2017 Remarks by Timothy J. O'Shaughnessy President and Chief Executive Officer



I'd like to begin by taking a brief walk down memory lane. It's been a little over three years since I joined Graham Holdings and just over two years since I became CEO. When I started, Don and the rest of the GHC Board of Directors gave me broad latitude to move the company forward. The mandate we created for my first several years at the Company was three-fold:

1) Constantly evaluate the broadcast and cable landscapes to make sure we can effectively compete in the ecosystem in a long-term, value optimizing way;

2) Work with the management team at Kaplan to return the business to consistent, stable growth while managing risk for the overall enterprise; and

3) Effectively allocate capital through the use of our formidable balance sheet, as well as the cash generated from the operations of Kaplan and Graham Media Group, to grow the underlying earning power of the Company in value accretive ways.

We've planted many seeds over the last few years. Some have sprouted, while others never took root. Overall we think the Graham Holdings you see today is stronger, less risky, and more poised for consistent, improved results than at any point since the spinoff of CableOne two and a half years ago.

At Graham Holdings we view 2017 as an early peek at what we believe is in store in the future. For long-time followers of the Company, you'll note that the previous statement is about as close to a forward looking prediction as you are likely to ever hear from us. We can't and won't predict the future; but, we are confident that much of the work of the last few years will start to bear real fruit in the future.

	Q3 2016	Q3 2017	% Change
Revenue	\$621.6	\$657.2	6
Operating Income before mpairment/Amortization of Goodwill			
and Other Long-Lived Assets*	\$74.6	\$55.8	(25)
	First	9 Months	%
	2016	2017	Change
Revenue	\$1,852.3	\$1,916.0	3
Operating Income before mpairment/Amortization of Goodwill			
and Other Long-Lived Assets*	\$213.2	\$179.8	(16)

2017 marked the return to revenue growth for Graham Holdings as well as a third leg in our business becoming meaningful in size - our Industrials group.

Revenue increased 3% for the first 9 months of 2017 and 6% in Q3 due to the acquisition of Hoover Treated Wood Products and organic growth at several businesses, which was partially offset by revenue declines at Kaplan.

Operating income before amortization and impairments declined by 25% in Q3 and 16% in the first 9 months of 2017 to \$179.8 million. The decline is largely due to a decrease in operating income at Graham Media Group, partially offset by improved results at Kaplan International and our Industrials group. Last year at this meeting we mentioned our expectation that broadcast results would almost certainly be down meaningfully. With the expiration of a long-term network agreement at the end of 2016, no Olympics and limited political revenue, we took that expected step backwards.



Our biggest investment in 2017 was the purchase of Hoover Treated Wood Products for \$207 million in April. Hoover is a producer of pressure-impregnated kiln-dried lumber and plywood products for fire retardant and preservative applications. While Hoover has a strong preservatives line, the fire retardant business is the jewel in the crown. We are the industry leader with the only national footprint, allowing us to service customers who operate in multiple regions. The business has been operating for over 60 years and has been able to steadily grow its market share most years. We expect this performance will continue under the same leadership and our ownership. Through the first 7 months, we have been pleased with the financial performance at Hoover.



Two other significant uses of capital were completing the purchase of two TV stations (WSLS in Roanoke and WCWJ in Jacksonville) and the opportunistic repurchase of shares throughout the year.

But perhaps our most significant transaction involved little cash. In the spring, we announced a transaction whereby Purdue University will acquire Kaplan University and its institutional assets and operations to form a new public university, "NewU", subject to regulatory approval.

## Kaplan University Sale to Purdue

- Purdue is an elite university; Kaplan is an online education pioneer
  - Transaction will further Purdue and Kaplan's mission to provide access to non-traditional students
- Kaplan contributes Kaplan University institutional assets to Purdue to form a new public university ("NewU")
  - US Professional Education offerings not included
- Kaplan to provide operations support for an initial term of 30 years, subject to buy-out option after six years
  - Support services include technology, help-desk, HR, admissions, financial aid, marketing and advertising, and other back office services
- Kaplan entitled to 12.5% fee of annual "NewU" net revenue, after
  - Reimbursement of "NewU" academic costs
  - Purdue priority payment of \$10 million per year for five years
  - · Reimbursement of Kaplan's support costs

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So why this transaction and why now?

- Purdue is an elite university in need of rapid acceleration of its online education

offerings; Kaplan is an online education pioneer and leader

- The transaction furthers our shared mission to provide access to non-traditional

students who often have life circumstances that keep physical campuses out of reach

- Kaplan's expertise in delivering online education and measuring learning outcomes

can be leveraged at scale.

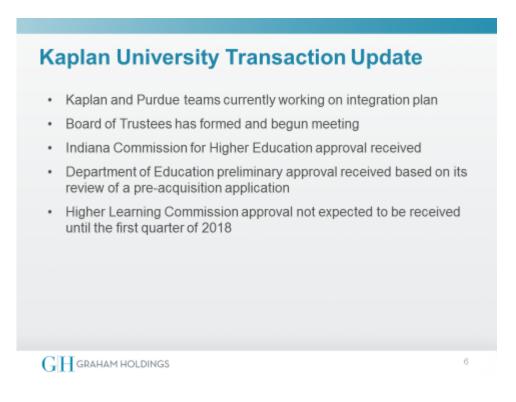
What is the financial relationship?

As previously reported, the current terms are:

- Kaplan is selling the institutional assets and operations of Kaplan University to Purdue for \$1

- Kaplan will provide operations support for an initial term of 30 years, subject to a buyout option after 6 years. The support services include things such as technology, helpdesk, HR, admissions, financial aid management, marketing and advertising, as well as several other back office functions

- Kaplan is entitled to a 12.5% fee of annual "NewU" net revenue, after 1) the reimbursement of "NewU" academic costs; 2) an annual \$10 million priority payment to Purdue for five years; 3) the reimbursement of Kaplan's support costs.



What has happened since the transaction announcement?

- The Kaplan and Purdue teams have been working on a transition plan and the "NewU"

Board of Trustees has formed and begun meeting

- The Indiana Commission for Higher Education approval was received
- The Department of Education preliminary approval was received
- The accreditation body, the Higher Learning Commission, has scheduled a review of

the transaction for its February meeting.

We've only become more confident that we are selling Kaplan University to a great institution. President Mitch Daniels and his team have been tremendous to work with and we are grateful for the extensive efforts of the many team members at both Purdue and Kaplan that have brought us this far and hope they will bring us the rest of the way.

Net Cash and Investments, September 30, 2016	\$533 *
Net Cash Provided by Operating Activities	329
Appreciation of Marketable Securities	120
Net Proceeds from Asset Sales	5
	987
Capital Expenditures	(69)
Investments in Businesses	(385)
Repurchases of Common Shares	(54)
Dividends Paid	(28)
Other, Net	(8)
Net Cash and Investments, September 30, 2017	\$443 *

Our balance sheet has remained strong with very manageable amounts of leverage. Over the 12 months ending September 30, our net cash and investments were moderately reduced, primarily due to the purchase of Hoover and the TV stations. The run-up in our marketable securities over the last twelve months and cash generated from operations has significantly offset this decline. We expect to continue our conservative leverage position, but; if needed, could add modestly to our current debt.



Graham Media Group added two more logos to the slide this year, with the completion of the purchase of the two previously mentioned TV stations for \$60 million in cash and the assumption of \$59 million in pension liabilities.



In addition to that transaction, the Houston team completed a move to a new facility, we strengthened our already solid positions in several markets (most notably San Antonio, where KSAT revenue share consistently runs in the mid-30s), and we successfully battled a few natural disasters. Five of GMG's seven stations are located in Texas or Florida, where Hurricanes Harvey and Irma had a significant impact on those local communities and our operations. Natural disasters, such as hurricanes, are where local news can really shine and provide potentially life-saving information to viewers. Our team delivered, bringing real-time updates across multiple platforms and achieving record levels of mobile viewership. Whatever was needed, our teams did it and we could not be more proud. The impact of the hurricanes were not without financial consequence to our business. In Q3, the lost ad revenue and increase in expenses to provide extended coverage were meaningful. We are hopeful for many years without another major hurricane reaching landfall.

	Q3 2016	Q3 2017	% Change
Revenue	\$112.4	\$101.3	(10)
Operating Income before Amortization*	\$59.2	\$34.0	(43)
	First 9	Months	%
	2016	2017	Change
Revenue	\$300.9	\$298.9	(1)
Operating Income before Amortization*	\$144.8	\$101.1	(30)

GMG revenue declined 10% in Q3 and was down modestly for the first 9 months of 2017. Adjusted operating income decreased by 30% through September 30 to \$101.1 million. The operating income decline was largely due to reduced political revenue, no summer Olympics, a new NBC network agreement, and the impact of the hurricanes.

Kaplan, Inc.			KAPLAN
	Q3 2016	Q3 2017	% Change
Revenue	\$386.9	\$376.8	(3)
Operating Income before Amortization*	\$18.1	\$14.7	(19)
	First 2016	9 Months 2017	% Change
Revenue	\$1,207.2	\$1,136.2	(6)
Operating Income before Amortization*	\$68.9	\$59.1	(14)
on-GAAP measure – see reconciliation at ghco o	om – investor relations		
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Kaplan continues to be an improving portfolio of education businesses. Beyond the Kaplan University transaction, the business continues to exit areas where we see a limited future and put more of our focus and capital on those with better potential.

Revenue at Kaplan declined 3% in Q3 and 6% through the first 9 months of 2017, while adjusted operating income declined by 14% to \$59.1 million through September 30, primarily due to declines at Kaplan University and transaction costs incurred to support the KU sale transaction.

	Q3	Q3	%
Devenue	2016	2017	Change
Revenue	\$119.9	\$105.0	(12)
Operating Income	\$4.5	\$2.0	(56)
	First 9	Months	%
	2016	2017	Change
Revenue	\$383.6	\$327.5	(15)
Operating Income	\$29.3	\$18.8	(36)

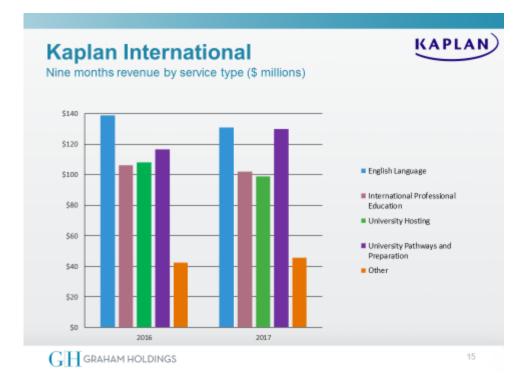
At the time of our annual meeting we provided supplemental information about Kaplan's US professional education offerings included in the Higher Education segment, as Kaplan US professional education will remain with the Company and is not part of the Purdue transaction. We are using today as another opportunity to provide an update. Excluding US professional education, Kaplan University revenue has declined by 15% through the first 9 months of the year with operating income falling 36% to \$18.8 million.

	Q3 2016	Q3 2017	% Change
Revenue	\$28.5	\$28.2	(1)
Operating Income	\$6.9	\$7.1	3
	First 9 2016	Months 2017	% Change
Revenue	\$87.8	\$88.8	1
Operating Income	\$20.9	\$21.8	4

Kaplan's US professional education revenue increased by 1% through the first 9 months of the year while operating income increased by 4% to \$21.8 million.

	Q3 2016	Q3 2017	% Change
Revenue	\$160.5	\$171.3	7
Operating Income	\$1.6	\$5.3	
	First 9	Months	%
	2016	2017	Change
Revenue	\$512.1	\$507.6	(1)
		\$29.0	26

Kaplan International had a better year through 9 months than in 2016. Revenue is down slightly through the first 9 months of the year with operating income improving by 26% to \$29 million. We continue to reduce costs at our English Language business in hopes of lowering our fixed cost base and we are very tightly managing the P&L until we come out of the current downward part of the cycle, which has been largely due to a stronger US dollar and a reduced desire to travel to the United States by international students.



Our Pathways business continues to show strong and steady growth and is on the cusp of surpassing the revenue of our English Language business to become the largest revenue driver of the portfolio.

Kaplan Test Prep			KAPLA
	Q3 2016	Q3 2017	% Change
Revenue	\$78.3	\$72.7	(7)
Operating Income	\$8.6	\$7.3	(15)
Adjusted Operating Income*	\$11.5	\$11.3	(1)
	First	9 Months	%
	2016	2017	Change
Revenue	\$224.1	\$213.0	(5)
Operating Income	\$13.3	\$10.2	(23)
Adjusted Operating Income*	\$23.1	\$21.4	(7)
cludes new economy skills training programs			
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Kaplan Test Prep continues to be the market leader. 2017 revenue has decreased modestly from 2016, with adjusted operating income falling by 7% to \$21.4 million through the first 9 months of the year. In the summer of 2017, we made the decision to close down Dev Bootcamp, which represents most of our new economy skills training programs, as it was unable to turn early promise into profitable growth. As such, we are showing Kaplan Test Prep operating income both with and without new economy skills training programs, to provide you with greater insight into the performance of Kaplan Test Prep.

Manufacturing	194		
\$ millions)		JOYCE	<b>FORNE</b>
	Q3 2016	Q3 2017	% Change
Revenue	\$62.2	\$115.6	86
Operating Income before Impairment/Amortization of Goodwill and Other Long-Lived Assets*	\$6.9	\$12.1	76
	First 9 2016	9 Months 2017	% Change
Revenue	\$176.9	\$298.2	69
Operating Income before Impairment/Amortization of Goodwill and Other Long-Lived Assets*	\$16.5	\$30.4	84
on-GAAP measure – see reconciliation at ghco.com – investor	relations		

Our manufacturing business grew significantly in 2017, primarily due to the acquisition of Hoover and organic growth. Through the first 9 months of the year, revenue increased 69% and operating income before amortization and impairments increased 84% to \$30.4 million. We have been pleased with how this group has performed and think we have a set of companies that have helped grow the intrinsic value of GHC for our shareholders. Our 2016 Dekko bolt-on acquisition of Electri-Cable Assemblies (ECA) has been an example of how we think our existing businesses can grow. ECA offered complementary products and now uses much of Dekko's platform to reduce overall costs and increase sales channel opportunities. ECA became a better business when owned by Dekko. With both Dekko and Hoover, we think we will be able to opportunistically bolt-on the occasional business.

Other Business Units* S S millions)	PAN	PLY	Cybe
	Q3 2016	Q3 2017	% Change
Revenue	\$60.1	\$63.5	6
Operating Loss before Amortization of Intangible Assets and Impairment of Goodwill and Other Long-Lived Assets**	(\$12.9) First 9 2016	(\$10.3) Months 2017	20 % Change
Revenue	\$167.4	\$182.8	9
Operating Loss before Amortization of Intangible Assets and Impairment of Goodwill and Other Long-Lived Assets** cludes Graham Healthcare Group, Social Code, Panoply, State, Forel on-GAAP measure – see reconciliation at photo com – investor relation		(\$25.8) berVista	(6)

Last but not least, our other business units are a compilation of companies that collectively have increased revenue by 9% and increased operating losses before amortization and impairments by 6% through the first 9 months of 2017. This set of businesses ranges from one we've owned for more than a decade, Slate, to three businesses we started organically within Graham Holdings: SocialCode, our marketing and technology business that helps brands most effectively use paid media on digital platforms; CyberVista, a cybersecurity training and education company; and, Panoply, one of the leading businesses in the nascent but fast growing on-demand audio and podcasting space. This group is rounded out by Graham Healthcare Group, a leading provider of home health and hospice care in Michigan, Illinois, and Pennsylvania, and Foreign Policy, our publication covering the world's events that is a must read for many in the diplomatic and international business communities.

Over time, we expect this group of businesses to grow, improve their margins, and reach profitability (although in some cases that milestone has already been reached). While most are not there today, our hope is that these businesses graduate to become profitable to Graham Holdings. In the case of SocialCode and Panoply, these businesses are helping to shape and create the media and advertising industries in which they operate. We believe these markets can be quite large and leadership positions could be significant value creators in the long-term.

## **Company Philosophy**

- Uniquely focused on the long-term
- · Focused on year to year results, not quarter to quarter
- Sector diversification
- · Maximize shareholder return through strategic capital allocation

## **Acquisition Strategy**

- · Well-run, profitable businesses in fields we can understand
- · Strong management with an interest in continuing to run the business

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- Businesses we believe have at least ten years of stable or growing earnings ahead of them
- · Reinvestment opportunities that are apparent within the business

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I'd like to close with a review of our company philosophy and acquisition strategy. If you are a current or prospective shareholder, it's important to understand that Graham Holdings operates by a set of principles as opposed to a set of sectors.

We are long-term in our orientation. We are willing to invest or lose money in the shortterm if we think there is a realistic opportunity for very positive returns on invested capital in the long-term.

We measure ourselves both annually and over multiple years. We do not manage for a quarter and do not plan to do so anytime soon.

We are diversified in our sectors. If we think prices are too high in a sector where we have existing operations, we will focus our capital allocation efforts elsewhere. We

chase good business opportunities, not sectors.

We view capital allocation as jobs 1, 2, and 3. We are focused on generating long-term shareholder return and our management team is aligned with this. Key members of our executive team have elements of their compensation in the form of options that are granted with an elevated strike price that only become "in the money" when the stock has achieved significant growth in value.

When not pursuing bolt-on acquisitions to existing businesses, our acquisition strategy is to:

- acquire well-run, profitable businesses in fields we can understand

- have strong management at the helm that has an interest in continuing to run the business

- acquire businesses that we believe have at least ten years of stable or growing earnings ahead of them

- prioritize businesses where reinvestment opportunities are readily apparent within the business.

As we wrap up 2017 and look forward to 2018, we are confident the Graham Holdings approach will drive growth of intrinsic value per share for years to come and we are optimistic that our results will be a reflection of that growth. I thank you for your time and would like to spend the rest of the session answering any questions you may have.

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